

## CLAIMS

1. A recording-medium reproduction method for reading, by a pickup, reproduction data stored in a recording medium in units of frames and for reproducing it, comprising:

5 reading the start-position information of the next frame and that of a predetermined frame other than the next frame;

storing the read start-position information of the frames;

controlling the pickup according to the read start-position information of the next frame;

10 reading the next frame;

if the next frame can be read, reproducing the reproduction data of the next frame; and

15 if the next frame cannot be read, reading a frame other than the next frame according to the stored start-position information of the predetermined frame and reproducing the reproduction data of a frame which can be read.

2. A recording-medium reproduction method according to Claim 1, wherein the start-position information of the predetermined frame is data indicating the reproduction order of VOBUs in a digital video disk.

20 3. A recording-medium reproduction method according to Claim 1, wherein the start-position information of the predetermined frame is data indicating the reproduction order of cells in a digital video disk.

4. A recording-medium reproduction method according to Claim 1, wherein the start-position information of the predetermined frame is data indicating the reproduction order of PGs in a digital video disk.

25 5. A recording-medium reproduction method according to Claim 1, wherein the start-position information of the predetermined frame is Next\_PGCN in a digital video disk.

6. A recording-medium reproduction method for reading, by a pickup, reproduction data stored in a recording medium in units of frames and for reproducing it, comprising:

reading the start-position information of the next frame and that of a plurality of types of predetermined frames other than the next frame;

storing the read start-position information of the next frame and that of the plurality of types of predetermined frames other than the next frame;

controlling the pickup according to the read start-position information of the next frame;

reading the next frame;

if the next frame can be read, reproducing the reproduction data of the next frame; and

if the next frame cannot be read, reading a frame other than the next frame according to the stored start-position information of the plurality of types of predetermined frames and reproducing the reproduction data of a frame which can be read.

7. A recording-medium reproduction method according to Claim 6, wherein the start-position information of the plurality of types of predetermined frames is data indicating the reproduction order of VOBUs and data indicating the reproduction order of cells in a digital video disk; if the next frame cannot be read, a frame other than the next frame is read according to the stored data indicating the reproduction order of VOBUs; and if even that frame cannot be read, a frame other than the next frame is read according to the stored data indicating the reproduction order of cells.

8. A recording-medium reproduction method according to Claim 6, wherein the start-position information of the plurality of types of predetermined frames is data indicating the reproduction order of cells and data indicating the reproduction order of PGs in a digital video disk; if the next frame cannot be read, a frame other than the next frame is read according to the stored data indicating

the reproduction order of cells; and if even that frame cannot be read, a frame other than the next frame is read according to the stored data indicating the reproduction order of PGs.

9. A recording-medium reproduction method according to Claim 6, wherein the start-position information of the plurality of types of predetermined frames is data indicating the reproduction order of PGs and Next\_PGCN in a digital video disk; if the next frame cannot be read, a frame other than the next frame is read according to the stored data indicating the reproduction order of PGs; and if even that frame cannot be read, a frame other than the next frame is read according to Next\_PGCN.

10. A recording-medium reproduction method according to Claim 6, wherein the start-position information of the plurality of types of predetermined frames is data indicating the reproduction order of VOBUs, data indicating the reproduction order of cells, and data indicating the reproduction order of PGs in a digital video disk; if the next frame cannot be read, a frame other than the next frame is read according to the stored data indicating the reproduction order of VOBUs; if even that frame cannot be read, a frame other than the next frame is read according to the stored data indicating the reproduction order of cells; and further if even that frame cannot be read, a frame other than the next frame is read according to the stored data indicating the reproduction order of PGs.

11. A recording-medium reproduction method according to Claim 6, wherein the start-position information of the plurality of types of predetermined frames is data indicating the reproduction order of cells, data indicating the reproduction order of PGs, and Next\_PGCN in a digital video disk; if the next frame cannot be read, a frame other than the next frame is read according to the stored data indicating the reproduction order of cells; if even that frame cannot be read, a frame other than the next frame is read according to the stored data indicating the reproduction order of PGs; and further if even that frame cannot be

read, a frame other than the next frame is read according to the stored  
Next\_PGCN.

12. A recording-medium reproduction method according to Claim 6,  
wherein the start-position information of the plurality of types of predetermined  
frames is data indicating the reproduction order of VOBUs, data indicating the  
reproduction order of cells, data indicating the reproduction order of PGs, and  
Next\_PGCN in a digital video disk; if the next frame cannot be read, a frame other  
than the next frame is read according to the stored data indicating the reproduction  
order of VOBUs; if even that frame cannot be read, a frame other than the next  
frame is read according to the stored data indicating the reproduction order of  
cells; further if even that frame cannot be read, a frame other than the next frame is  
read according to the stored data indicating the reproduction order of PGs; and  
furthermore if even that frame cannot be read, a frame other than the next frame is  
read according to the stored Next\_PGCN.

13. A recording-medium reproduction apparatus for reading, by a  
pickup, reproduction data stored in a recording medium in units of frames and for  
reproducing it, comprising:

frame-start-position-information reading means for reading the  
start-position information of the next frame and that of a predetermined frame  
other than the next frame;

a memory for storing the information read by the frame-start-  
position-information reading means; and

reproduction control means for controlling the pickup according to  
the start-position information of the next frame, read by the frame-start-position-  
information reading means, for reading the next frame, for reproducing the  
reproduction data of the next frame if the next frame can be read, and for reading a  
frame other than the next frame according to the start-position information of the  
predetermined frame stored in the memory, and reproducing the reproduction data  
of a frame which can be read if the next frame cannot be read.

14. A recording-medium reproduction apparatus according to Claim 13, wherein, as the start-position information of the predetermined frame, data indicating the reproduction order of VOBUs in a digital video disk is used.

15. A recording-medium reproduction apparatus according to Claim 13, wherein, as the start-position information of the predetermined frame, data indicating the reproduction order of cells in a digital video disk is used.

16. A recording-medium reproduction apparatus according to Claim 13, wherein, as the start-position information of the predetermined frame, data indicating the reproduction order of PGs in a digital video disk is used.

17. A recording-medium reproduction apparatus according to Claim 13, wherein, as the start-position information of the predetermined frame, Next\_PGCN in a digital video disk is used.

18. A recording-medium reproduction apparatus for reading, by a pickup, reproduction data stored in a recording medium in units of frames and for reproducing it, comprising:

frame-start-position-information reading means for reading the start-position information of the next frame and that of a plurality of types of predetermined frames other than the next frame;

a memory for storing the information read by the frame-start-position-information reading means; and

reproduction control means for controlling the pickup according to the start-position information of the next frame, read by the frame-start-position-information reading means, for reading the next frame, for reproducing the reproduction data of the next frame if the next frame can be read, and for reading a frame other than the next frame according to the start-position information of the plurality of types of predetermined frames, stored in the memory, and reproducing the reproduction data of a frame which can be read if the next frame cannot be read.

19. A recording-medium reproduction apparatus for reading, by a pickup, reproduction data stored in a recording medium in units of frames and for reproducing it, comprising:

5 a frame-start-position-information reading section for reading the start-position information of the next frame and that of a predetermined frame other than the next frame;

a memory for storing the information read by the frame-start-position-information reading section; and

10 a reproduction control section for controlling the pickup according to the start-position information of the next frame, read by the frame-start-position-information reading section, for reading the next frame, for reproducing the reproduction data of the next frame if the next frame can be read, and for reading a frame other than the next frame according to the start-position information of the predetermined frame, stored in the memory, and reproducing the reproduction data of a frame which can be read if the next frame cannot be read.

20. A recording-medium reproduction apparatus for reading, by a pickup, reproduction data stored in a recording medium in units of frames and for reproducing it, comprising:

20 a frame-start-position-information reading section for reading the start-position information of the next frame and that of a plurality of types of predetermined frames other than the next frame;

a memory for storing the information read by the frame-start-position-information reading section; and

25 a reproduction control section for controlling the pickup according to the start-position information of the next frame, read by the frame-start-position-information reading section, for reading the next frame, for reproducing the reproduction data of the next frame if the next frame can be read, and for reading a frame other than the next frame according to the start-position information of the plurality of types of predetermined frames, stored in the

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Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
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